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Risk prediction and decision making in policing - humans, algorithms and data: A study of processes at Bedfordshire, Hertfordshire and Cambridgeshire police

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Version: Poster

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Risk prediction and decision making in policing – Humans, Algorithms and Data.
(*A study of processes at Bedfordshire, Hertfordshire and Cambridgeshire police*)

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Research Goals

Developing an understanding of the information cycle in policing and the nature (culture, context, practices, processes) of information collection, management and how these shape the use and exploitation of data.

Examining the role of "humans" in
- **Production of information and data (through citizen interactions with staff in police control rooms)**
- **Generation of information (during day to day policing)**
- **Creation of information and data (through intelligence collected via community policing and detectives investigating focused criminal issues)**
- **Exploitation of information and data using algorithmic tools**

Considering the critical issues related to use of information for risk assessment and decision making in policing using advanced metrics or statistics, algorithms and other advanced technologies.

Research Approach

- **Observing and interviewing police officers and business leaders while they go about their day to day activities as unobtrusively as possible to understand working culture, context, practices, processes and procedures on the basis of the their relationships, use of technologies, interaction with working tools and equipment, communication and interactions through ethnography.**
- **Inductive interpretivism : repeatedly examining observed phenomena and disclosed information to identify themes, concepts and patterns that help to fulfil the research goals and answer research questions.**
- **Validating the information, patterns and themes through sustained enquiry and repeated visits to the field.**

Interim Findings

Information received is subjected to review and risk assessed to make decisions to limit harm and prevent crime.

The way information is supplied, acquired, shared and used in policing influences risk assessment and decision making.

Receiving, recording, monitoring, reporting and sharing information is resource intensive, placing strain on limited resources.

The assessment of risk is a process repeated often within any given process or procedural activity.

Technologies are adequate' but not very advanced for communication and information dependent, complex, multifaceted and challenging work.

Data is collected and stored as intelligence and used to understand crime patterns and predict future crime

The recently adopted information systems experience repetitive outages and increase administrative burden, but do provide database systems with wider information sharing capabilities across three policing counties with easier information retrieval and intelligence recording

Collaborative work and interaction between police officers, ambulance and paramedic services and fire services demonstrate that communication and sharing of information between these services is critical.

There is better accountability and evidence collection using body worn cameras.

Other public service agencies use the record keeping tools, risk assessment diligence, response and round the clock availability of policing as a first, last and convenient resort.